

200321US-2



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF:

YUKI MATSUSHIMA

: GROUP ART UNIT: NOT ASSIGNED

SERIAL NO: 09/726,559

FILED: DECEMBER 1, 2000

FOR: CAMERA APPARATUS AND METHOD OF TAKING PICTURES

LETTER TO THE OFFICIAL DRAFTSMAN

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, DC 20231

SIR:

In response to the Notice to File Missing Parts of Nonprovisional Application, attached hereto please find 15 sheets of Substitute Formal Drawings. It is requested that the enclosed 15 sheets of Substitute Formal Drawings be entered to replace the drawings previously filed in this application.

Respectfully submitted,

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FIG.1

BLOCK DIAGRAM SHOWING A CONFIGURATION OF AN EMBODIMENT OF A DIGITAL CAMERA ACCORDING TO THE PRESENT INVENTION.

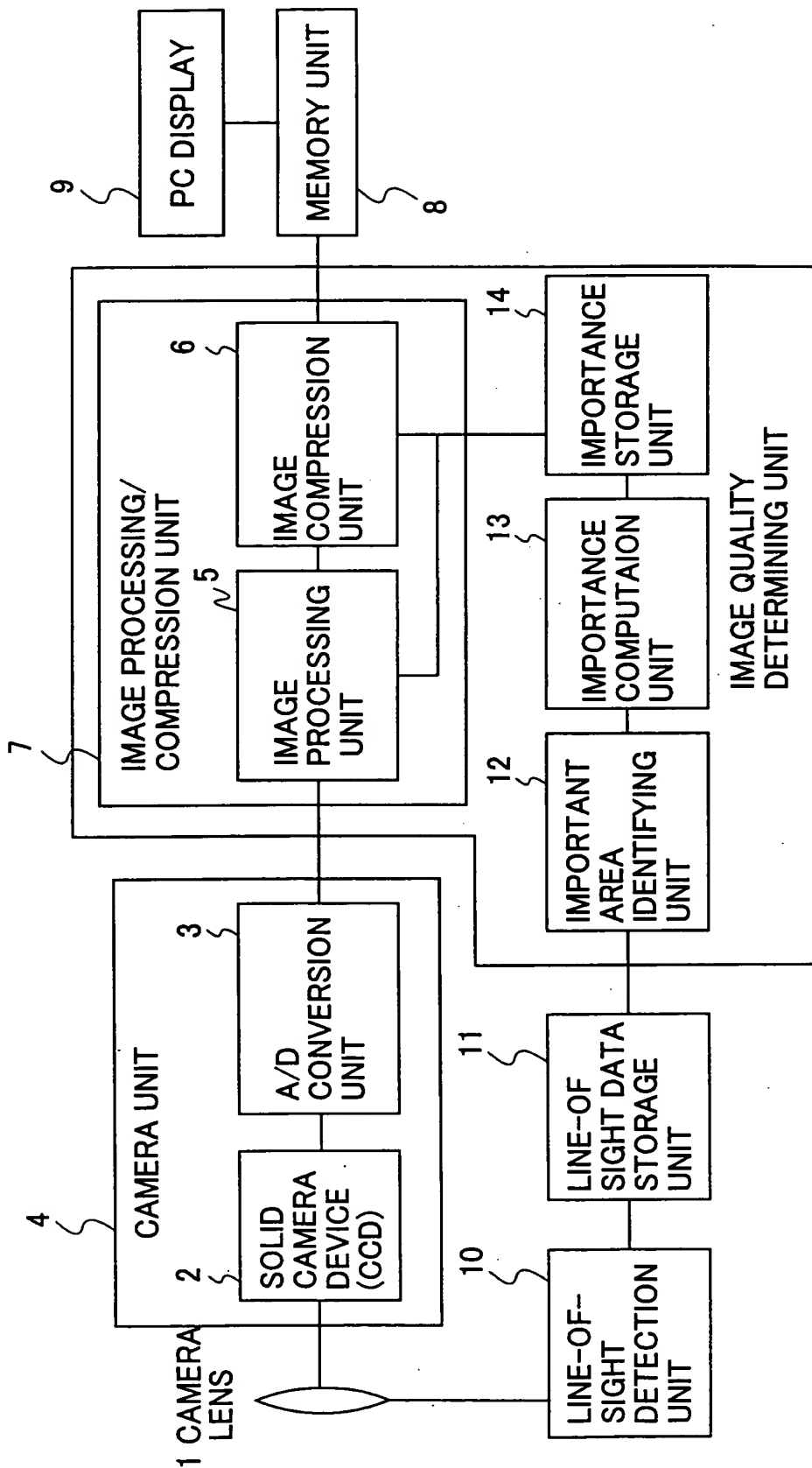


FIG.2

DRAWING SHOWING AN EMBODIMENT OF A CONFIGURATON OF A LINE-OF-SIGHT DETECTION UNIT.

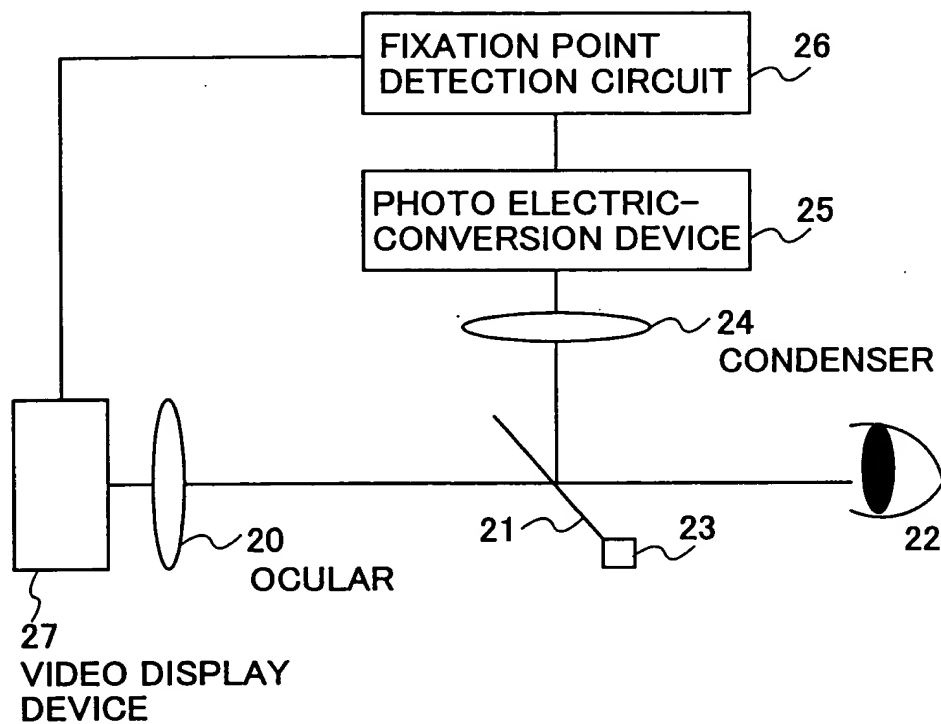


FIG.3

DRAWING SHOWING THE WAY A DISPLAY SCREEN IS DIVIDED INTO A PLURALITY OF BLOCKS IN ORDER TO DETECT A POINT OF FIXATION BY THE UNIT OF ONE BLOCK.

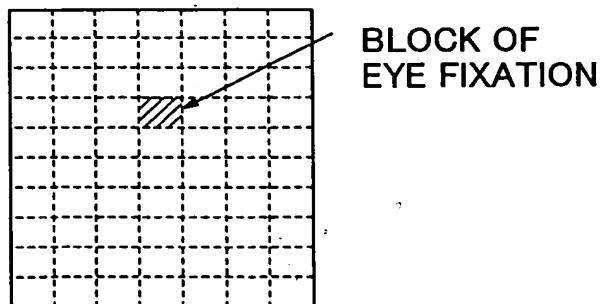


FIG.4

DRAWING SHOWING THE IMPORTANCE OF THE PIXEL OF INTEREST AND POSITIONAL RELATIONSHIP BETWEEN THE AREA OF IMPORTANCE AND THE PIXEL OF INTEREST.

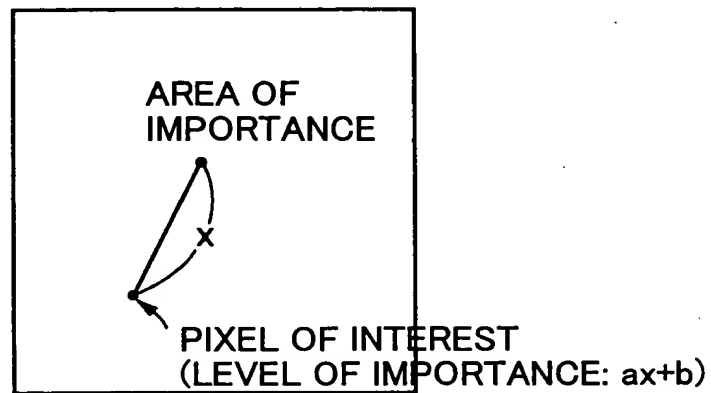
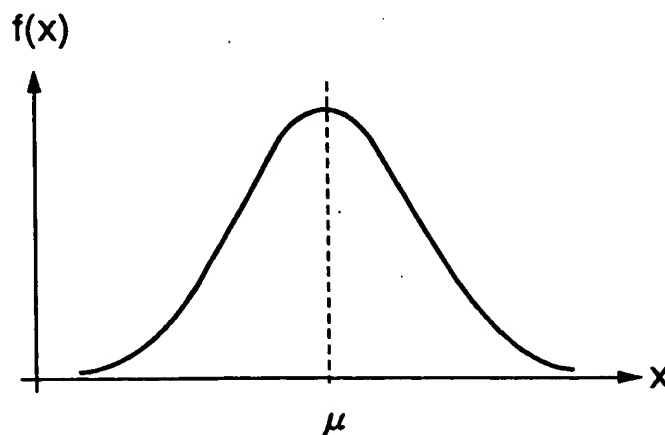


FIG.5

DRAWING SHOWING A GAUSSIAN DISTRIBUTION FUNCTION THAT DEFINES LEVELS OF IMPORTANCE.



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FIG.6

DRAWING SHOWING THE WAY TWO AREAS OF IMPORTANCE ARE SPECIFIED IN AN IMAGE.

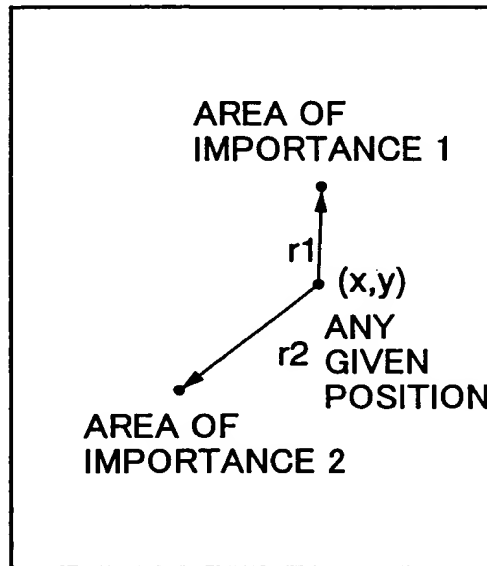
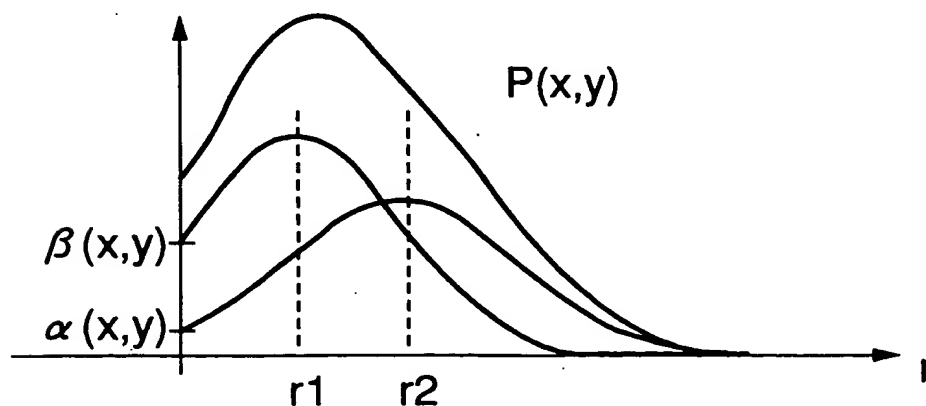


FIG.7

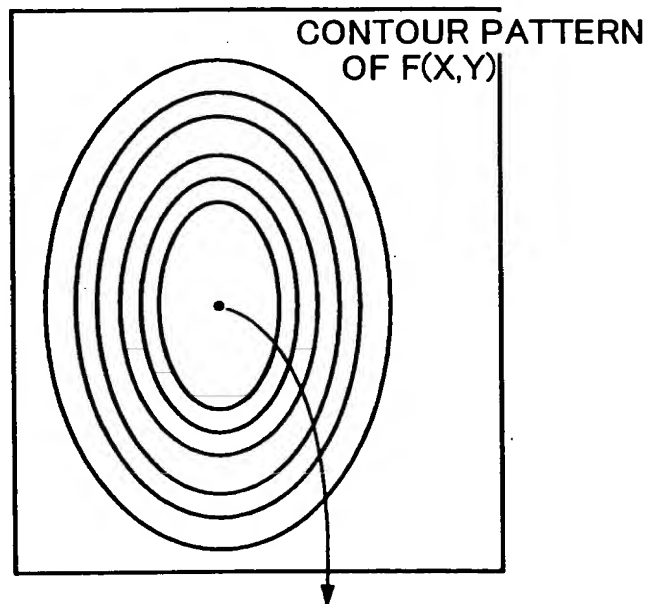
DRAWING SHOWING THE IMPORTANCE OF POSITION(X,Y) IN THE IMAGE WITH RESPECT TO THE FIRST AREA OF IMPORTANCE AND THE SECOND AREA OF IMPORTANCE.



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FIG.8

DRAWING SHOWING A CONTOUR PATTERN OF IMPORTANCE
IN A CASE WHERE THE AREA OF IMPORTANCE IS DEFINED AS
A SMALL ELLIPSE REGION OF THE IMAGE.



CENTER OF AREA OF IMPORTANCE
i.e., FIXATION POINT OF USER EYE

FIG.9

DRAWING SHOWING AN EXAMPLE OF IMPORTANCE THAT IS
QUANTIZED INTO FIVE LEVELS.

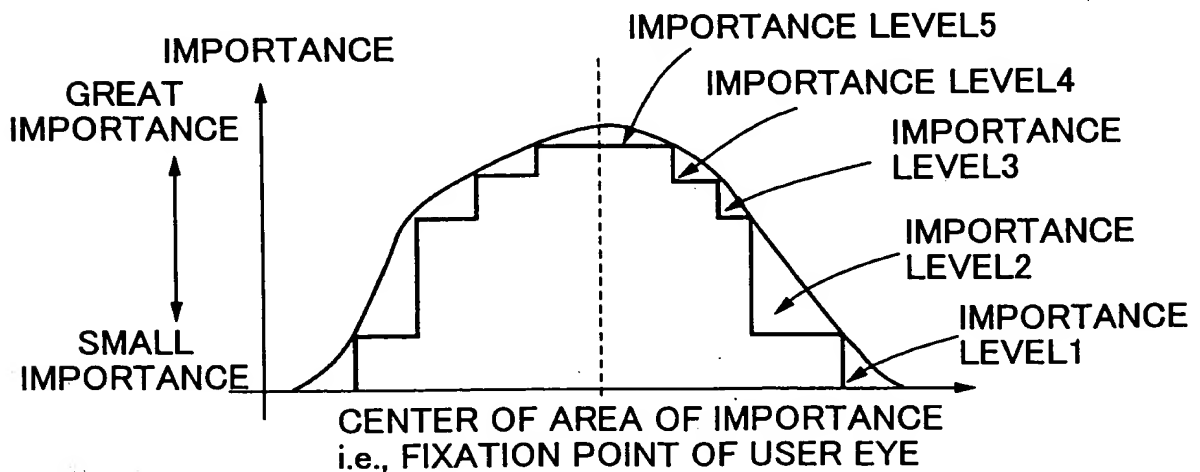
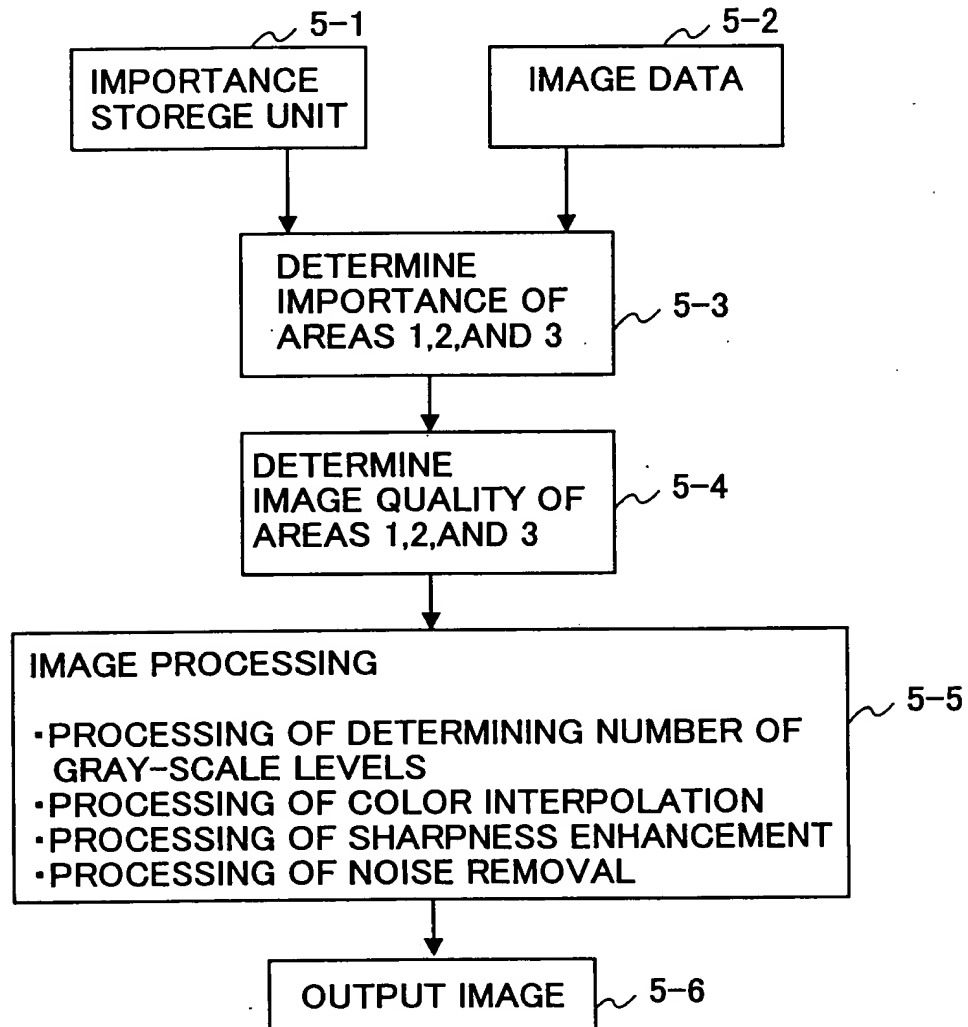


FIG.10

BLOCK DIAGRAM SHOWING A FUNCTIONAL BLOCK CONFIGURATION OF AN IMAGE PROCESSING UNIT.



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FIG.11

DRAWING SHOWING QUANTIZED IMPORTANCE LEVELS THAT ARE ASSIGNED TO RESPECTIVE AREAS OF AN IMAGE WITH REFERENCE TO AN EXAMPLE IN WHICH THE AREA OF IMPORTANCE IS AN ELLIPSE SHAPE.

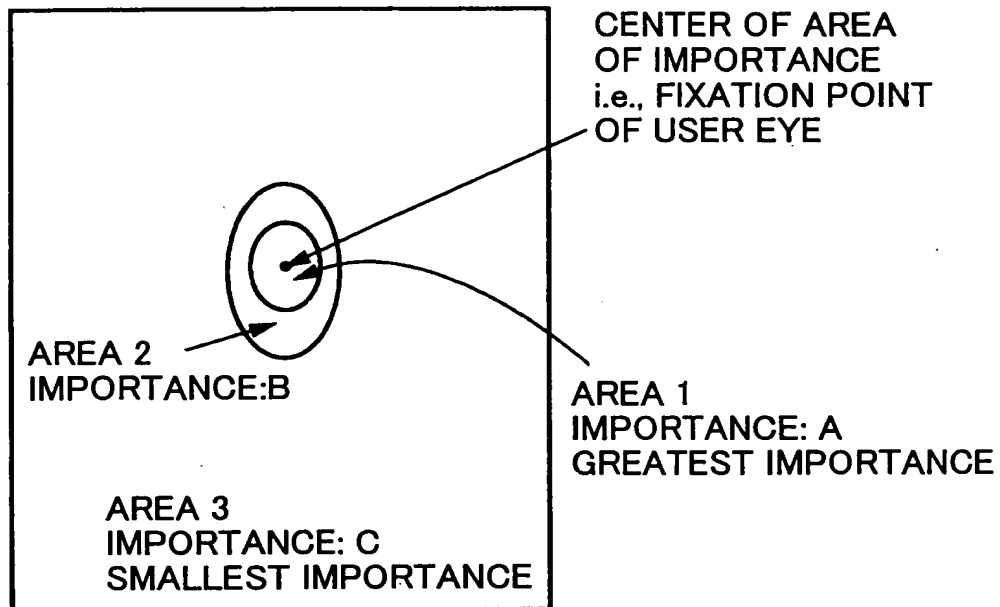


FIG.12

EXAMPLE OF BLOCKS INTO WHICH AN IMAGE IS DIVIDED HORIZONTALLY AND VERTICALLY.

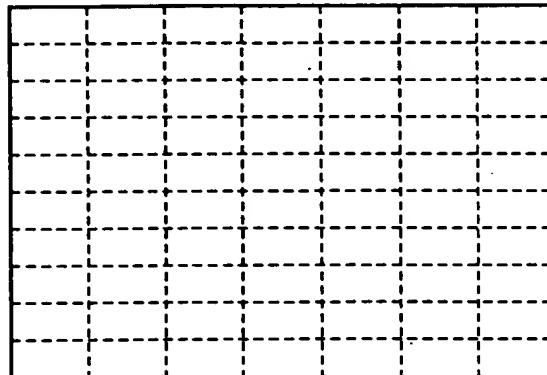
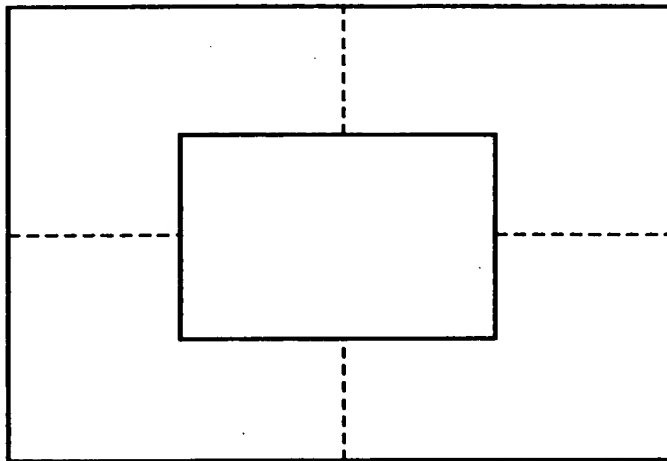


FIG.13

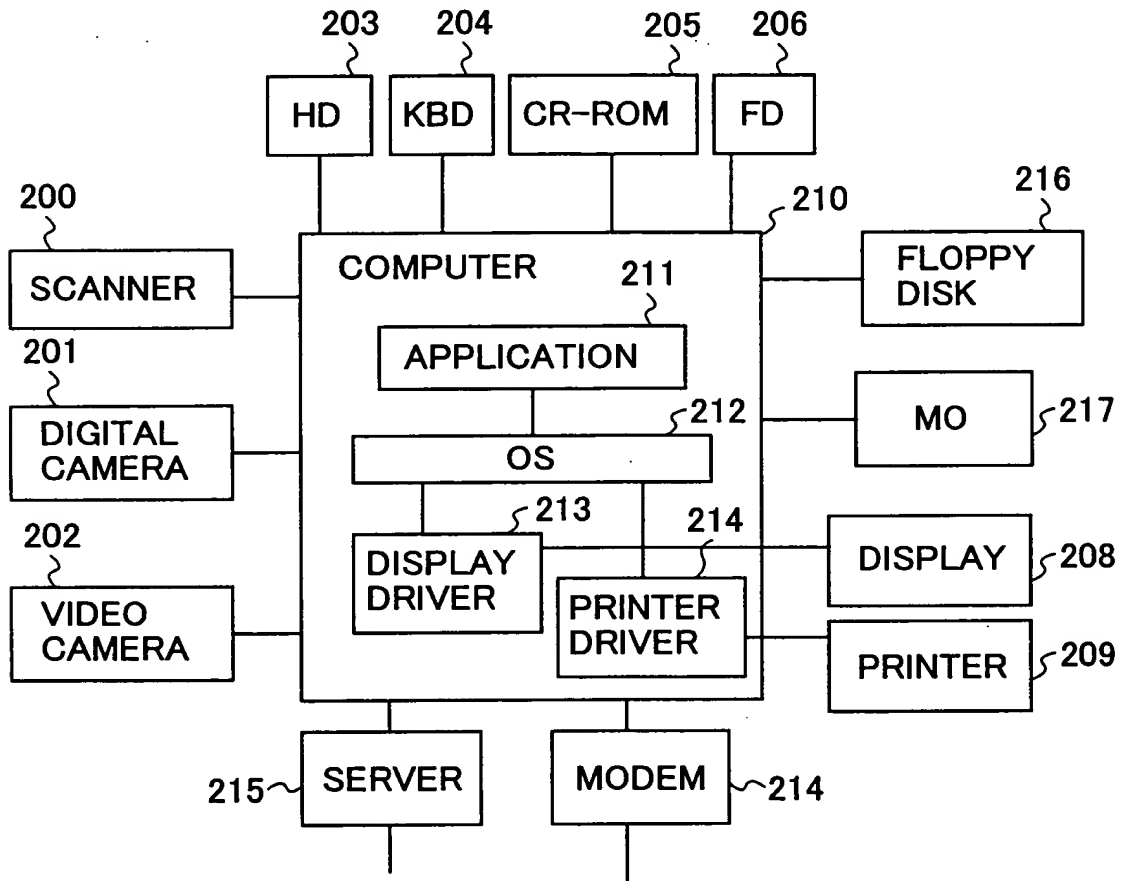
EXAMPLE OF BLOCKS HAVING DIFFERENT SHAPES INTO
WHICH AN IMAGE IS DIVIDED.



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FIG.14

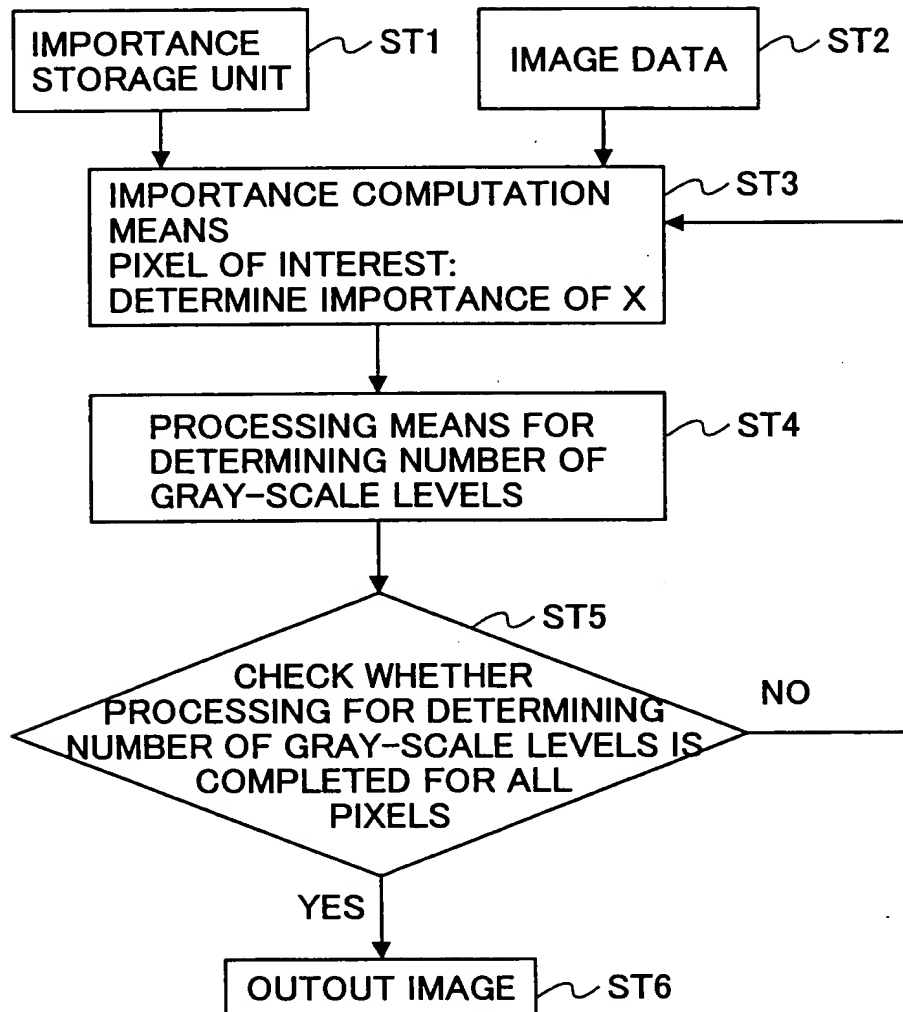
BLOCK DIAGRAM SHOWING AN EXAMPLE OF A HARDWARE CONFIGURATION INCLUDING AN IMAGE OUTPUT APPARATUS.



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FIG.15

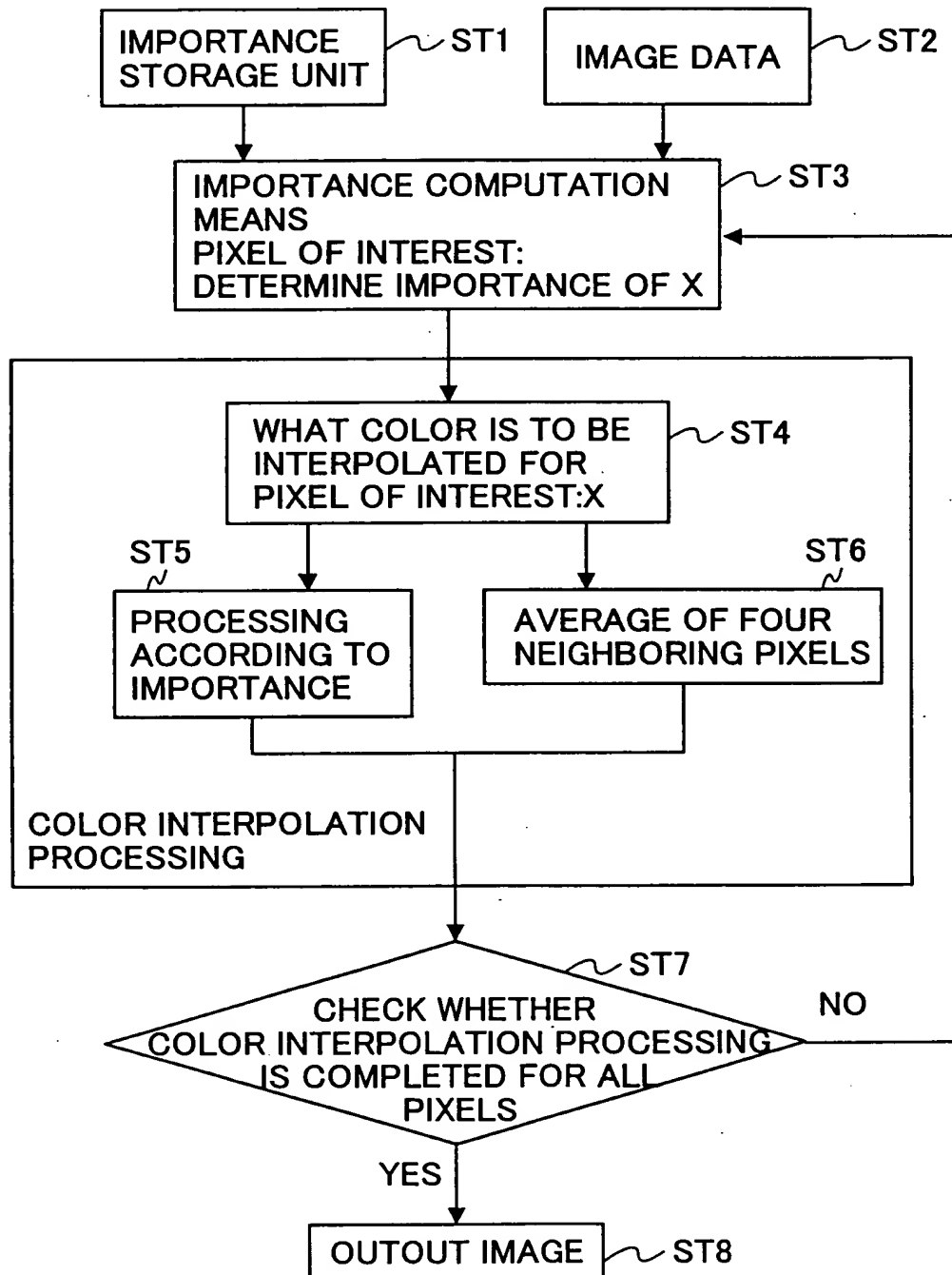
FLOWCHART SHOWING A FIRST EMBODIMENT OF A PROCESS
OF MAKING IMAGE QUALITY VARY DEPENDING ON LEVELS OF
IMPORTANCE.



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FIG.16

FLOWCHART SHOWING A SECOND EMBODIMENT OF A PROCESS OF MAKING IMAGE QUALITY VARY DEPENDING ON LEVELS OF IMPORTANCE.



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FIG.17

DRAWING SHOWING A CONFIGURATION OF A COLOR FILTER
IN THE CASE OF A CAMERA DEVICE BEING A PRIMARY COLOR
ARRAY CCD.

G	B	G	B	G
R	G	R	G	R
G	B	G	B	G
R	G	R	G	R
G	B	G	B	G

FIG.18

DRAWING SHOWING THE PIXEL OF INTEREST AND FOUR
NEIGHBORING PIXELS FOR THE PURPOSE OF COLOR
INTERPOLATION PROCESSING.

	a	
b	X	c
	d	

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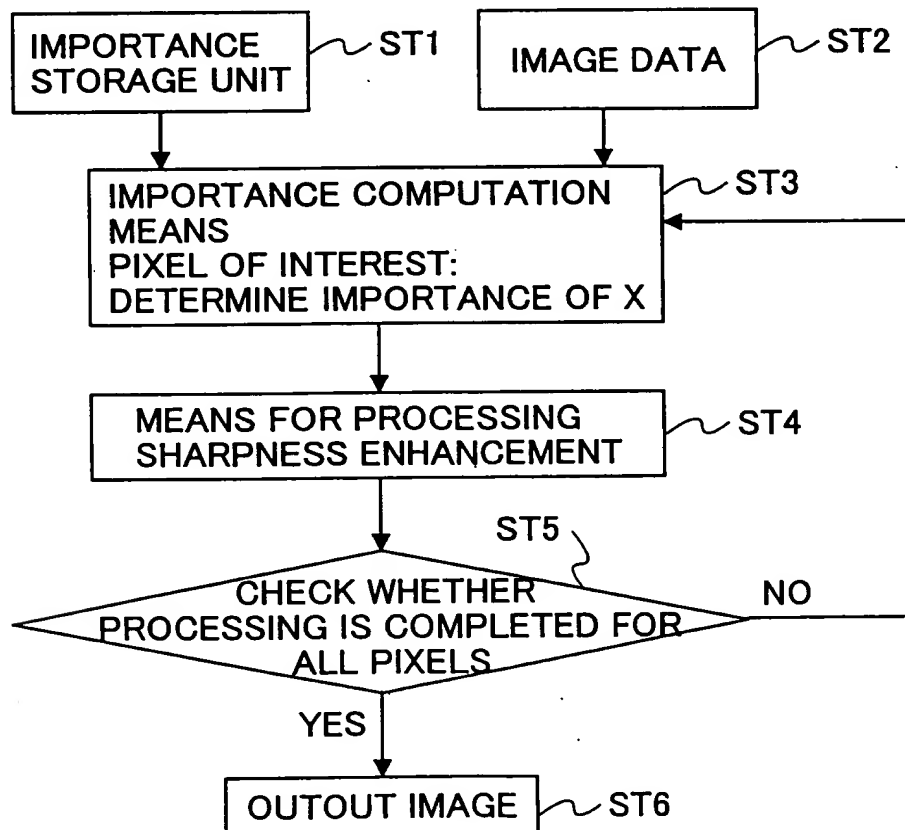
FIG.19

DRAWING SHOWING AN EXAMPLE OF A WIDE AREA OF INTERPOLATION REFERENCE THAT CORRESPONDS TO THE CASE OF GREAT IMPORTANCE.

	e		h	
i		a		l
	b	x	c	
j		d		k
	f		g	

FIG.20

FLOWCHART SHOWING A THIRD EMBODIMENT OF A PROCESS OF MAKING IMAGE QUALITY VARY DEPENDING ON LEVELS OF IMPORTANCE.



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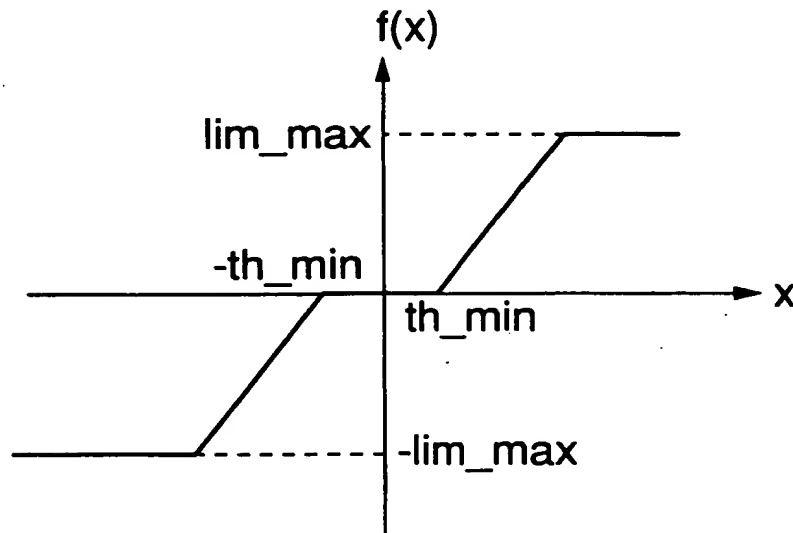
FIG.21

DRAWING SHOWING THE PIXEL OF INTEREST AND NEIGHBORING PIXELS FOR THE PURPOSE OF SHARPNESS ENHANCEMENT PROCESSING.

		s		
		t		
a	b	X	c	d
		u		
		v		

FIG.22

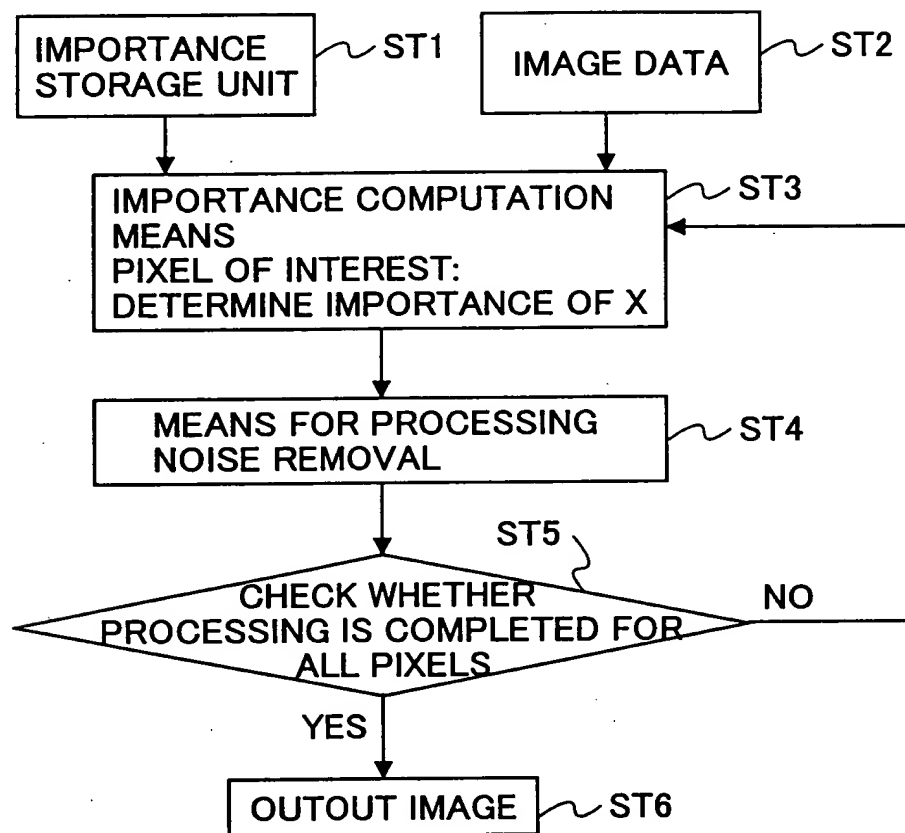
DRAWING SHOWING A NON-LINEAR TRANSFORMATION APPLIED TO LAPLACIAN OPERATION.



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FIG.23

FLOWCHART SHOWING A FOURTH EMBODIMENT OF A PROCESS OF MAKING IMAGE QUALITY VARY DEPENDING ON LEVELS OF IMPORTANCE.



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